CFLOS

- CFLOS Procedures
  - Filling out worksheet
  - Verification
  - Amendments
  - Models
  - Other factors
- Customers
- U2

CFLOS Procedures

- Filling out the worksheet.
  - **Fill out worksheet completely.**
  - **Graphic depictions should match 24 HWD and 48 hour HWD (FOXX61).**
  - **24-48hour forecast**
  - **UA analysis**
    - Evaluate upstream/overhead cloud formation/dissipation
    - Consider both low and upper-level clouds (e.g. Fog vs. CI)
    - Synoptic situation – don't forget to evaluate the long wave pattern.
  - **Satellite discussion.**
    - Discuss features that will affect the peninsula.
    - Extrapolate upstream cloud features.
      - Take into consideration upper level dynamics, such as confluent flow, amplitude changes of upstream features, and speed of movement.

CFLOS Procedures

- Filling out worksheet cont.
  - FCST % of Cloud Coverage.
    - Use model data to estimate the percentage of cloud coverage.
    - Enter Persistence percentage (by category) of cloud coverage for morning verification.
      - Cat 1 – 0 to 10%
      - Cat 2 – 11 to 29%
      - Cat 3 – 30 to 100%
  - Model Discussion.
    - Did the models initialize/verify?
    - What are the models doing with the moisture and features that will affect the DMZ region?
  - Be sure to look at the Gayikian Method of Forecasting CI on back of worksheet.

CFLOS Procedures

- Verification.
  - Times.
    - 0032Z HRGEO
    - 0432Z/0532Z HRGEO
  - Overlay area outline on picture.
  - Count the number of squares that are mostly filled with clouds.
    - Be sure to include coastal areas like Wonsan.
    - Divide number counted for area “A” by 130.
    - Divide number counted for area “B” by 57.
    - Divide number counted for area “C” by 41.
    - Divide number counted for area “D” by 40.
      - Example: 65/130 = 50%, so verification would be 50%.

CFLOS Procedures

- Amendments
  - Amend CFLOS any time there is a category change.
  - When to amend.
    - Improving to Cat 1 must be amended ASAP, but no later than 2230L.
    - Deteriorating conditions must be amended ASAP, but no later than 0600L.
  - Dissemination.
    - J2 Collection Management 723-3597/3609.
    - HTACC - 784-4133.

CFLOS Procedures

- Model Information.
  - MM5.
    - 2D Clouds.
      - This is a very good product, but you need to verify how it is doing with the current features on METSAT.
      - Has a slight bias towards over-forecasting clouds.
    - Dew point depression above 24K feet.
      - Shows areas of dew point depressions from 0 to 12.
      - Excellent product for probable CI/CS areas.
      - Only evaluate “green” areas as CI
    - Inner Nest SFC Winds and RH.
      - Will show areas of onshore flow (fog considerations).

CFLOS Procedures

- Model Information.
  - NOGAPS
    - 850 RH.
      - Model has a tendency to over-forecast on the initial panel, but 12 and 24 hour forecast is usually corrected and is representative.
      - Sometimes will not pick up on cold air SC in the West Sea.
    - 850/925 mb winds
      - Generally accurate on direction and speed.
      - Good for indicating areas of onshore flow.
    - 300/500 mb winds
      - Excellent for finding areas of confluent flow that would tend to inhibit or dissipate mid and upper level clouds.

CFLOS Procedures

- Model Information
  - AVN/MRF
    - 850 RH
      - Good at picking up cold air SC over the West Sea.
      - Generally a good product through the forecast period, but MM5 is better because of the 3 hour breakdown.

CFLOS Procedures

- Model Information.
  - Cloud Advect Model.
    - Good at showing trends.
    - Considers cloud formation/dissipation.
    - Something else to look at.

CFLOS Procedures

- What else?
  - Other Factors.
    - Look at what regime will be affecting the region.
    - Synoptic pattern.
      - What upper level features will be affecting the region.
        - » Short wave ridges/trofs.
    - Typical time for fog.
      - Stagnant airmass
      - The morning after return flow sets up.
      - Burning rice patties.
    - Weather Elements on Forecast – use FOXX61 (be consistent with Synoptic 1 forecaster)

Customers

- USFK-CINC
- C2
  - ROKAF 2 Star.
    - This is generally who the I & W briefing is for.
    - USFK-DCINC attends the briefing on Mondays.
- J2
  - 1 Star.
    - Owns collection management.
      - These are the people who make the sensor call based on our forecast and what is hot for the day.
- Others
  - HTACC, U2 maintainers, U2 pilots

U2

- Missions.
  - Generally 1 per day, but can have a morning and evening run.
  - Collects imagery.
  - Collects SIGNET (signal intel. -- radio).

U2

- Sensors
  - H-CAM
    - High resolution visual imagery
      - Used when cloud cover is low. (generally CAT 1).
      - Will use in CAT 2 situations with prior coordination with weather and if there is something they really need to see.
      - Most expensive sensor to use.
      - Low range.
  - EO
    - Electro Optic.
      - Basically IR imagery.
      - Used in CAT 2 and CAT 3 situations when clouds are not very thick.
      - Medium range.

U2

- Sensors
  - ASARS
    - Radar imagery
      - low resolution
      - Used in CAT 2 or 3 conditions when the clouds are thick.
      - Used when a higher range is needed.
  - Specific information about sensors is classified.

U2

- Weather impacts to the U2 (Osan AB)
  - Cross wind
    - 11 kts - observed advisory
    - 16 kts - Threshold
      - Will depend on mission criticalness for launch.
    - 21 kts - No Go.
    - 5 kts with icy runway
    - 15 kts with a wet runway
  - RVR
    - Take off
      - 1,600 ft --- wavable to 1,000 ft.
    - Landing
      - 2,400 ft.

U2

- Weather impacts to the U2
  - Visibility
    - 1 mile for night recovery.
    - > 1/2 mile for night launch
  - ICG
    - Cannot operate in icing conditions.
      - Can fly through layer of a couple of thousand feet.
  - TURBC
    - Cannot operate in SVR or greater.
  - TSTMS
    - Avoid at all times
      - Cannot Take off when TSTMS W/I 10NM
      - Avoid by 10NM below FL230 and 20NM above FL230
  - FZ PCPN -- Avoid at all times